Appl'n. No. 09/583,903
Response dated July 9, 2004
Reply to Office Action of March 25, 2004

REMARKS/ARGUMENTS

I. Introduction

Applicant thanks the examiner for his careful examination of the present application. Below is a summary of Applicants understanding of the present application's status.

1. Claims 1-23 remain in this application.
2. Claims 1-3 and 9-20 stand rejected under 35 U.S.C, 103(a) as being unpatentable over Zeng(U.S. Patent 6,373,974 hereinafter Zeng) in view of Leighton(U.S. Patent 5,949,885 hereinafter Leighton).
3. Claims 4-8 and 21-23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Zeng in view of Leighton and further in view of Moskowitz et al.(U.S. Patent 5,905,800 hereinafter Moskowitz).
4. Claims 1, 20, 21 and 23 are the only independent claims under review.
5. No additional prior art was made of record.
6. The drawings stand accepted by the examiner.

II. 35 U.S.C. § 103(a) Claim Rejections

A. Independent Claim 1

The rejection of claim 1 is improper because neither Zeng nor Leighton disclose step (c)(i), "calculating a sample mean," step (c)(ii) "calculating a sample variance," and step (c)(iii), "normalizing said content" in a method for **embedding** a watermark into content. The examiner cites Zeng, (col. 5,lines 49-67) to reject these limitations. However, Zeng actually discloses using mean, variance and normalization calculations in generating Hypothesis functions as part of a "watermark **detector**, shown generally at 30 in FIG. 1b." *See* Zeng, Col. 5, lines 24-25. Additionally, Zeng does not disclose "normalizing said content." Because neither Zeng nor Leighton disclose calculating a sample mean, calculating a sample variance, or normalizing content, in a method for embedding a watermark into content, withdrawal of this rejection is respectfully requested.

B. Dependent Claims 2 through 19

Because of at least the reasons stated above, applicant now believes that independent claim 1 is now in condition for allowance. Therefore, the current rejections of Claims 2 through 19 are improper because they both ultimately depend upon allowable independent Claim 1. "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496

- 2 -

Appl'n. No. 09/583,903
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(CCPA 1970); MPEP § 2143.03. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Because Claims 2 through 19 ultimately depend upon independent Claim 1, the rejections of claims 2 through 19 are improper. Consequently, in light of independent claim 1, withdrawal of these rejections is respectfully solicited.

Applicant respectfully requests the examiner to provide a reference or evidence for each "Official Notice" taken in rejecting claims 9 through 12 and 18. See MPEP 2144.03. In addition, applicant also notices that the examiner did not provide evidence for any of his statements regarding motivation to combine references in any of rejections. It appears that the statements of motivation are not in the references themselves or the knowledge available to one of ordinary skill in the art to modify the references or combine the reference teachings. See MPEP 2143. Therefore, applicant respectfully requests that the examiner provide evidence that there is motivation to combine or modify the cited references.

C.   Independent Claim 20

The rejection of claim 20 is improper because neither Zeng nor Leighton disclose step "(c) generating a watermark sequence using a correlation function, said correlation function using the watermarked content, the estimated watermark, a scaling factor, and a weighting factor per a predetermined equation" in a method for extracting a watermark sequence from watermarked content. However, Zeng discloses a correlation detector that is defined as:

$$q = \frac{\sum_{i=1}^{} Y_i}{V_y n^{1/2}} = \frac{M_y n^{1/2}}{V_y}$$

Y is a feature set times a signature, n is the size of the feature set, M_y is the sample mean of Y_i, V_y is the square root of the sample variance of Y_i, and the result is q. These variables are represent values. As can be seen, none of these variables are "a scaling factor, or a weighting factor per a predetermined equation." In addition, result q is a value that is ultimately compared to a threshold, not "a watermark sequence." Because neither Zeng nor Leighton discloses "generating a watermark sequence using a correlation function using ... a scaling factor, and a weighting factor per a predetermined equation, withdrawal of this rejection is respectfully requested.

D.   Independent Claim 21

- 3 -

The rejection of claim 21 is improper because neither Zeng, Leighton, nor Moskowitz disclose "a correlator, said correlator generating a watermark sequence from the watermarked content, the scaling factor, the weighting factor and the watermark estimate" in "[a]n apparatus for extracting a watermark sequence from watermarked content." However, Zeng discloses a correlation detector that is defined as:

$$q = \frac{\sum_{i=1}^{} Y_i}{V_y n^{1/2}} = \frac{M_y n^{1/2}}{V_y}$$

Y is a feature set times a signature, n is the size of the feature set, M_y is the sample mean of Y_i, V_y is the square root of the sample variance of Y_i, and the result is q. These variables are represent values. As can be seen, none of these variables are "a scaling factor, or a weighting factor per a predetermined equation." In addition, result q is a value that is ultimately compared to a threshold, not "a watermark sequence." Because neither Zeng, Leighton, nor Moskowitz discloses a "correlator generating a watermark sequence from the watermarked content, the scaling factor, the weighting factor and the watermark estimate", withdrawal of this rejection is respectfully requested.

E. Independent Claim 22

The rejection of claim 22 is improper because neither Zeng, Leighton, nor Moskowitz discloses "[a]n apparatus for **embedding** a watermark data into content including: ... (a) a content preprocessor, said content preprocessor further including: (i) a mean calculator; and (ii) a variance calculator." The examiner cites Zeng, (col. 5, lines 49-67) to reject these limitations. However, Zeng actually discloses using mean, and variance calculations in generating Hypothesis functions as part of a "watermark **detector**, shown generally at 30 in FIG. 1b." See Zeng, Col. 5, lines 24-25. Although Zeng discloses a watermark embedded in fig. 1a, the disclosure does not include a mean calculator; or a variance calculator. Because neither Zeng, Leighton, nor Moskowitz disclose a mean calculator, or a variance calculator in an apparatus for **embedding** a watermark into content, withdrawal of this rejection is respectfully requested.

F. Dependent Claim 23

Because of at least the reasons stated above, applicant now believes that independent claim 22 is now in condition for allowance. Therefore, the current rejection of Claim 23 is improper because it depends upon allowable independent Claim 22. Consequently, in light of independent claim 22, withdrawal of this rejection is respectfully solicited.

- 4 -

Appl'n. No. 09/583,903
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III.   Conclusion

For all of the reasons advanced above, Applicant respectfully submits that the application is in condition for allowance and that action is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicant's agent at the telephone number shown below.

The Commissioner is hereby authorized to charge any additional fees, which may be required, or credit any overpayment, to Deposit Account No. 501450.

Respectfully submitted,

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- 5 -